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20/20

Milestone

Abstract: This project was created to fill a void in the availability of free software to manage and play Dungeons and Dragons using a computer. Rather than using lots of paper, as people used to do, it's becoming more popular today (and certainly more convenient) to use technology to run a D&D campaign. Running a game of D&D is extremely time consuming and complex, so I began this project knowing that there are a huge number of individual things I could do that might be relevant to a game, but realistically it would take far too much time to program all of them or make a program that could fully run a game. Rather, I have worked so far at some of the most common actions and information you might need while playing a D&D campaign.

Introduction: Playing a D&D campaign using paper is a very nuanced, difficult, and time-consuming task. Setting up a character, the first thing that a player would have to do, could take a new player hours. It makes sense, then, that using a computer program to help walk you through the character creation process and manage the game would be very helpful. Many of these programs, though, are subscription based and have a high initial cost for the digital copies of the books. Even once the character is made, making changes to the character as you play requires you to either erase and rewrite, or print off the character's sheet again. These types of problems are things that I sought to address while working on this project. As I continue, I will go into the details of the current system, requirements for that system, better detail of the processes in the paper books as well as current online tools, and a brief description of how to use the program in its current state.

Detailed System Description: The current system has a limited few things that it can do. When the program is run, it prompts the user for a command and tells them to enter 'help' for help. The program then enters a loop that will continue to take commands from the user until the user inputs 'quit' when the program asks for a command. The most involved functions of the system right now involve characters and some of their abilities and stats. The enterpc, seepc, and printpc commands all have various functions, and all involve the PC (Player Character) class.

PC
+name: String +hp: int +str: int +dex: int +con: int +intel: int +wis: int +cha: int
+PC() +PC(name: String, hp: int, str: int, dex: int, con: int, intel: int, wis: int, cha: int)

This class is mainly used just to store the information for the entered characters, which is put specifically in a size four list of PC class objects. Seepc will print the information of the desired character to the console, while printpc will print the information of the desired character to a text file, along with the modifiers for all the attributes. This allows for a user to have a very basic character sheet that they can type into to modify, changing their hp, stats, and modifiers as the need to.

Requirements: This project is meant to address the lack of free D&D character managing and playing software. While there are plenty of paid resources online, many subscription-based, there are very few (or maybe difficult to find) programs to manage and create characters for free. This project allows you to enter characters and manage them using text files on your computer. This would allow you to print your characters to text files and move them to some easier to access

location on your computer, rename them, and then type in them to modify the stats, condition, or other variables about the character.

Literature Survey: Another program that was made to address the difficulties of running a D&D campaign is D&D Beyond. This is a tool made by the creators of the D&D game, so it is the most up to date and complete tool available on the internet. This tool allows you to create and manage characters in complete detail, access digital copies of the books, search databases of items, spells, and monsters, and watch extra content to give ideas to players and dungeon masters.

User Manual: To use this system, the user should enter in commands when the program prompts them to. The help command gives a full list of all the possible commands and entering those commands will begin various processes. The user should only be entering integers when asked for numbers for hp and attributes, as it is impossible in the game to have any stats or numbers be anything other than integers.

Conclusion: In conclusion, the program that I am creating is meant to be a tool to make playing and managing a campaign in D&D free and easier. By allowing you to enter and save characters by printing them to a text file, you can easily format multiple characters and keep them in some easy to access place on your computer, allowing you to modify them without having to erase or reprint papers when you need to make a change.

References:

https://www.dndbeyond.com/ - Character creation service and digital copies of the D&D Fifth Edition Player's Handbook, Dungeon Master's Guide, and Monster Manual